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Preface

Nowadays, lasers in manufacturing are again showing double-digit growth rates each year. This is driven by a combination of the continued increase of market penetration in "conventional" laser applications such as macro cutting and welding on the one hand; and new, innovative, upcoming applications such as additive manufacturing on the other hand. To foster this position in a global market, it is of great importance that lasers and laser applications not only meet the classical industrial demands in terms of costs, speed and quality, but also contribute to a sustainable and green manufacturing environment. In continuation of the successful Lasers in Manufacturing (LIM) conference 2011's focus on sustainable manufacturing, LIM 2013 sets the focus on Green Production again with priority topics such as laser material processing in E-Mobility, laser CFRP & lightweight material processing, laser processes for a flexible automated mass production and additive laser manufacturing, and others.

With the LIM conference, the German Scientific Laser Society (WLT) offers an international platform for a professional and scientific exchange in the field of laser material processing. It is the goal to enable researchers and industrial participants to openly discuss advances and innovations contributing to the above mentioned fields. We are looking forward to a schedule of more than 130 quality presentations and fruitful discussions, and warmly welcome all of our participants.

For the first time this year, these proceedings will be available only electronically online on Elsevier's Physics Procedia and on USB stick, as our own small contribution to environmental goals as well as to go with the times. However, the review process, profiting from an international renowned Scientific Committee has been unchanged, guaranteeing the same quality and high standard known from previous printed versions. We hope that these proceedings will be a valuable source for consultation and recollection for all those attending the conference, and at the same time enabling colleagues that have not been able to attend the conference to profit from this comprehensive overview of the state of the art of lasers in manufacturing.

Munich, May 2013
The Editors

C. Emmelmann / M. Schmidt / M. Zaeh / T. Graf

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